FULTON SCIENCE ACADEMY

— Private School —

Fulton Science Academy High School Course Catalog

2026-2027 School Year

Administration and Leadership

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Mr. Cody Moncrief, Instructional Coordinator

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Mrs. Emily Thompson, Student Records

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1. FSAPS HS GRADUATION REQUIREMENTS

- Minimum Credits Required (23 credits)
    - English (4 credits)
    - Mathematics (4 credits)
    - Science (4 credits)
    - Social Studies (3 credits)
    - Fine Arts/World Language/CTAE

      Students planning to enter or transfer into a University System of Georgia institution or other post-secondary institution must take two credits of the same world language. The other credit needed can be a CTAE, Fine Arts, or World Language credit.
    - PE / Health (1 credit -.5 credit of each)
    - Electives (minimum 4 credits)
- Students may exceed the minimum number of credits required. This is especially possible with the inclusion of credits earned in middle school and dual enrollment credits.
- Community Service is highly recommended for students, however, it is not a graduation requirement. Students are recommended to complete at least 100 hours of community service.

2. COURSE CATALOG

MATH COURSES

Algebra Concepts and Connections Honors (27.0811040) 1 Credit

Prerequisite: This course is designed for students who have successfully completed Kindergarten through 8th grade mathematics.
Textbooks used: Savvas Envision Aga Algebra I
Standards:
https://www.gadoe.org/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/Documents/Mathematics/Georgia-K12-Mathematics-Standards/Georgia-HS-Algebra-Mathematics-Standards.pdf
Course Description: Algebra Concepts and Connections Honors is the first course in a sequence of three high school courses designed to ensure career and college readiness. Students will apply their algebraic and geometric reasoning skills to make sense of problems involving algebra, geometry, bivariate data, and statistics. This course focuses on algebraic, quantitative, geometric, graphical, and statistical reasoning. In this course, students will continue to enhance their algebraic reasoning skills when analyzing and applying a deep understanding of linear functions, sums and products of rational and irrational numbers, systems of linear inequalities, distance, midpoint, slope, area, perimeter, nonlinear equations and functions, quadratic expressions, equations and functions, exponential expressions, equations, and functions, and statistical reasoning.

High school course content standards are listed by big ideas including Data and Statistical Reasoning, Probabilistic Reasoning, Functional and Graphical Reasoning, Patterning and Algebraic Reasoning, and Geometric and Spatial Reasoning

Geometry Concepts and Connections Honors (27.0821040) 1 Credit

Prerequisite: Algebra Concepts & Connections Honors
Textbook: Savvas Envision Geometry
Standards Used:
https://www.gadoe.org/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/Documents/Mathematics/Georgia-K12-Mathematics-Standards/Georgia-HS-Geometry-Mathematics-Standards.pdf
Course Description: Geometry Concepts and Connections Honors is the second course in a sequence of three high school courses designed to ensure career and college readiness. This

course is intended to enhance students' geometric, algebraic, graphical, and probabilistic reasoning skills. Students will apply their algebraic and geometric reasoning skills to make sense of problems involving geometry, trigonometry, algebra, probability, and statistics. Students will continue to enhance their analytical geometry and reasoning skills when analyzing and applying a deep understanding of polynomial expressions, proofs, constructions, rigid motions and transformations, similarity, congruence, circles, right triangle trigonometry, geometric measurement, and conditional probability.
High school course content standards are listed by big ideas including Data and Statistical Reasoning, Probabilistic Reasoning, Functional and Graphical Reasoning, Patterning and Algebraic Reasoning, and Geometric and Spatial Reasoning.

Advanced Algebra Concepts and Connections Honors (27.0831040) 1 Credit

Prerequisite: Algebra Concepts and Connections Honors and Geometry: Concepts and Connections Honors
Textbook: Savvas Envision Aga Algebra II
Standards:
https://www.gadoe.org/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/Documents/Mathematics/Georgia-K12-Mathematics-Standards/Georgia-HS-Advanced-Algebra-Mathematics-Standards.pdf
Course Description: Advanced Algebra: Concepts & Connections Honors is the third course in a sequence of courses designed to ensure career and college readiness. It is intended to prepare students for fourth mathematics course options relevant to their postsecondary pursuits. High school course content standards are listed by big idea, including Data and Statistical Reasoning, Probabilistic Reasoning, Functional and Graphical Reasoning, Patterning and Algebraic Reasoning, and Geometric and Spatial Reasoning.
In Advanced Algebra: Concepts & Connections, students will continue to enhance their data and statistical reasoning skills as they learn specific ways to collect, critique, analyze, and interpret data. Students will learn how to use matrices and linear programming to represent data and to solve contextually relevant problems. Students will strengthen their geometric and spatial reasoning skills as they learn how to solve trigonometric equations using the unit circle. In previous courses, students studied how to use linear and quadratic functions to model real-life phenomena. In Advanced Algebra: Concepts and Connections, students will further develop their functional and graphical reasoning as they explore and analyze structures and patterns for exponential, logarithmic, radical, polynomial, and rational expressions, equations and functions to further understand the world around them.

Enhanced Advanced Algebra and AP Precalculus: Concepts and Connections (27.0931050) 1 Credit

Prerequisite: This course is designed for students who have successfully completed Geometry: Concepts & Connections.

Textbooks: Savvas Envision Aga Algebra II and Pearson, A Graphical Approach to Precalculus with Limits

Standards: AP Precalculus Course Framework/Standards: https://apcentral.collegeboard.org/media/pdf/ap-precalculus-course-and-exam-description.pdhttps://apcentral.collegeboard.org/media/pdf/ap-precalculus-course-and-exam-description.pdf

Advanced Algebra Standards: https://www.gadoe.org/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/Documents/Mathematics/Georgia-K12-Mathematics-Standards/Georgia-HS-Advanced-Algebra-Mathematics-Standards.pdf

Course Description: The Enhanced Advanced Algebra and AP Precalculus: Concepts and Connections (27.0931050) course is a thoughtful blend of the topics from Advanced Algebra: Concepts & Connections and Precalculus. This is a single credit course, intended to provide students the opportunity to develop a deeper understanding of mathematical concepts that are critical to the study of advanced fourth mathematics course options, including Calculus. Students will continue to enhance their understanding of data and statistical reasoning, functional and graphical reasoning, patterning and algebraic reasoning, and geometric and spatial reasoning. There should be an emphasis on notational fluency and the use of multiple representations as students engage with all topics. Some of those topics include, sequences and series with the incorporation of convergence and divergence; conic sections as implicitly defined curves; the six trigonometric functions and their inverses; applications of trigonometry such as modeling periodic phenomena, modeling with vectors and parametric equations, solving oblique triangles in contextual situations, graphing in the Polar Plane; solutions of trigonometric equations in a variety of contexts; and the manipulation and application of trigonometric identities. In previous courses, students studied how to use linear and quadratic functions to model real life phenomena. In the Enhanced Advanced Algebra and AP Precalculus: Concepts and Connections course, students will further develop their algebraic, functional, and graphical reasoning as they explore and analyze structures and patterns for exponential, logarithmic, radical, polynomial, piecewise and rational expressions, equations, and functions to further understand the world around them. Topics should be analyzed in multiple ways, including verbal and written, numerical, algebraic, and graphical presentations. Instruction and assessment should include the appropriate use of technology. Concepts should be investigated and applied, where appropriate, within the context of realistic phenomena.

Pre-Calculus Honors (27.0841040) 1 Credit

Prerequisite: Algebra II Honors
Textbooks: Pearson, A Graphical Approach to Precalculus with Limits
Standards:
https://www.gadoe.org/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/Documents/Mathematics/Georgia-K12-Mathematics-Standards/Georgia-HS-Precalculus-Mathematics-Standards.pdf
Course Description:Accelerated Pre-Calculus Honors course is the third in a sequence of mathematics courses designed to ensure that students are prepared to take higher-level mathematics courses during their high school career, including Advanced Placement Calculus BC, and Advanced Placement Statistics. In this course, students will be actively engaged in problem solving, reasoning, connecting and communicating mathematically as they explore families of functions. Special emphasis will be on the Introduction to Trigonometric Functions, Trigonometric Functions, Trigonometry of General Triangles, Trigonometric Identities, Matrices, Conics, Vectors, and Inferences & Conclusions from Data Probability. Additional topics to be investigated include Sequences, Series, Polar Coordinate System, De Moivre's Theorem, Binomial Theorem and Mathematical Induction.

AP Pre-Calculus (27.0741080) 1 Credit

Prerequisite: Advanced Algebra 90+, MAP Math 90+
Textbooks: Pearson, A Graphical Approach to Precalculus with Limits
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-precalculus-course-and-exam-description.pdhttps://apcentral.collegeboard.org/media/pdf/ap-precalculus-course-and-exam-description.pdf
Textbooks
Course Description: AP Precalculus centers on functions modeling dynamic phenomena. This research-based exploration of functions is designed to better prepare students for college-level calculus and provide grounding for other mathematics and science courses. In this course, students study a broad spectrum of function types that are foundational for careers in mathematics, physics, biology, health science, business, social science, and data science. The course is structured to provide a coherent capstone experience rather than exclusively focusing on preparation for future courses. Throughout this course, students develop and hone symbolic manipulation skills, including solving equations and manipulating expressions, for the many function types throughout the course. Students also learn that functions and their compositions, inverses, and transformations are understood through graphical, numerical, analytical, and verbal representations, which reveal different attributes of the functions and are useful for solving problems in mathematical and applied contexts. In turn, the skills learned in this course are widely applicable to situations that involve quantitative reasoning. AP Precalculus fosters the development of a deep conceptual understanding of functions. Students learn that a function is a mathematical relation that maps a set of input values— the domain—to a set of output

values—the range—such that each input value is uniquely mapped to an output value. Students understand functions and their graphs as embodying dynamic covariation of quantities, a key idea in preparing for calculus. With each function type, students develop and validate function models based on the characteristics of a bivariate data set, characteristics of covarying quantities and their relative rates of change, or a set of characteristics such as zeros, asymptotes, and extrema. These models are used to interpolate, extrapolate, and interpret information with different degrees of accuracy for a given context or data set. Additionally, students also learn that every model is subject to assumptions and limitations related to the context. As a result of examining functions from many perspectives, students develop a conceptual understanding not only of specific function types but also of functions in general. This type of understanding helps students to engage with both familiar and novel contexts

AP Calculus AB (27.0720010) 1 Credit

Prerequisite: PreCalculus
Textbook: Cengage Learning, Calculus: AP Edition
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-calculus-ab-and-bc-course-and-exam-description.pdf
Course Description: AP Calculus AB is a college-level course, and thus, this class will move at a fast pace. This course is intended for the dedicated mathematics student who wishes to challenge him/herself more than they have been challenged before. In this course, we will cover all of the topics that are stated on the topical outline for Calculus AB. In addition to learning the concepts that are required, we will make Calculus come to life by working and examining real-world problems to see the many uses of Calculus. Graphing calculators will be used to examine our work in a variety of ways. Emphasis will be placed on expressing solutions verbally and through writing to showcase the reasoning behind the thinking. AP Calculus AB is roughly equivalent to the first semester college calculus course. The AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions. You are expected to perform a significant amount of work outside of the classroom to keep up with the material. You are also expected to ask questions—ask me and your peers. Our goals are content mastery and an excellent score on the AP exam. These are lofty but attainable goals. With hard work, humility, and a deep appreciation for calculus, we will accomplish these goals together.

AP Calculus BC (27.0730010) 1 Credit

Prerequisite: AP PreCalc or Acc. PreCalculus or Calculus or AP Calculus AB
Textbook: Cengage Learning, Calculus: AP Edition

Framework:
https://apcentral.collegeboard.org/media/pdf/ap-calculus-ab-and-bc-course-and-exam-description.pdf

Course Description: The Advanced Placement Calculus BC course is equivalent to a first and second semester college calculus courses devoted to topics in differential and integral calculus including parametrically defined curves, polar curves, and vector-valued functions; develops additional integration techniques and applications; and introduces the topics of sequences and series. This course includes instruction and student assignments on all of the topics as listed in the AP Course Description: "Topic Outline for Calculus BC". AP Calculus BC is primarily concerned with developing the students' understanding of the concepts of Calculus and providing experience with its methods and applications. The course is to help students see and interpret the world through the lens of integral and differential calculus. To that end, a focus is placed on providing a strong conceptual foundation including the concepts of a limit, a derivative and an integral. With a strong foundation and extensive practice with applications and problems, students become prepared for the AP Calculus Exam as well as additional coursework in Calculus. The rigor of this course is consistent with colleagues and universities and will prepare students for the Advanced Placement exam in May.

AP Statistics (27.0740010) — 1 Credit

Prerequisite: Acc. Pre-Calculus H 80+ or Algebra 2 H 90+

Textbook: W.H. Freeman and Company, The Practice of Statistics

Framework:
https://apcentral.collegeboard.org/media/pdf/ap-statistics-course-and-exam-description.pdf

Course Description: AP Statistics is a rigorous, college level, non-calculus based course intended to be the equivalent of a first year college level course. The course is guided by the AP syllabus and covers the following areas: organizing data, normal, binomial, geometric, and sample distributions, correlation, experimental designs, probability, and statistical inference and testing. Upon completion students will develop into competent interpreters and users of statistical data and information. Decision-making and justification of statistical hypotheses are emphasized. The AP Statistics course will prepare students for the College Board Advanced Placement Exam, which is given in May.

SCIENCE COURSES

Biology Honors (26.0120040) — 1 Credit

Prerequisite: N/A
Textbook: Campbell Biology Concepts & Connections 8th Edition
Standards:
https://www.georgiastandards.org/Georgia-Standards/Documents/Science-Biology-Georgia-Standards.pdf &
https://www.nextgenscience.org/sites/default/files/HS%20LS%20topics%20combined%206.13.13.pdf
Course Description: This course is meant to provide foundational knowledge and skills to foster proficiency in biology by focusing on the identification of patterns, processes, and the relationships of organisms. This course will include more abstract concepts such as the interdependence of organisms, the relationship of matter, energy, and organization in living systems, the behavior of organisms, and biological evolution.

Chemistry Honors (40.0510040) — 1 Credit

Prerequisite: Biology Honors
Textbook: Pearson Chemistry
Standards:
https://lor2.gadoe.org/gadoe/file/9ef97f6e-c64e-4772-ab02-ef511285b81f/1/Science-Chemistry-Georgia-Standards.pdf
https://www.nextgenscience.org/sites/default/files/HS%20PS%20topics%20combined%206.12.13.pdf
Course Description: In this exciting course, you will continue the investigations of the physical sciences that began in Grades K-8. The course is designed to provide students with the necessary knowledge and skills in chemistry. Chemistry extends the physical sciences to more abstract concepts including: the structure and properties of matter, structure of atoms, the interaction of matter, and the conservation of matter. These concepts are investigated through laboratory experiences, online simulations, and other fieldwork designed to help you develop appropriate knowledge and skills in science as inquiry.

Physics I Honors (40.0810040) — 1 Credit

Prerequisite: Prerequisite of Algebra 2 Honors
Textbook: Holt Physics
Standards:
https://lor2.gadoe.org/gadoe/file/4c8cb053-4fde-4850-a917-40d71763a719/1/Science-Physics-Georgia-Standards.pdf &

https://www.nextgenscience.org/sites/default/files/HS%20PS%20topics%20combined%206.12.13.pdf

Course Description: This course is meant to provide the necessary skills to be proficient in physics. The topics include more abstract concepts such as nuclear decay processes, interactions of matter and energy, velocity, acceleration, force, energy, momentum, properties and interactions of matter, electromagnetic and mechanical waves, and electricity and magnetism and their interactions. These topics will be investigated through experiences in lab exercises by using the science and engineering practices of asking questions and defining problems, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructing explanations and designing solutions, engaging in argument from evidence, and obtaining, evaluating, and communicating information.

AP Environmental Science (26.620010) 1 Credit

Prerequisite: Algebra I Honors and two years of high school laboratory science, including life science and physical Science

Textbook: Environmental Science for the AP® Course Third Edition

Framework:

https://apcentral.collegeboard.org/media/pdf/ap-environmental-science-course-and-exam-description.pdf

Course Description: APES is a college-level course, and thus, this class will move at a fast pace. You are expected to perform a significant amount of work outside of the classroom to keep up with the material. You are also expected to ask questions and participate in lecture when appropriate. APES is the equivalent of a first-year introductory environmental science course. Our goals are content mastery and an excellent score on the AP exam. We expect every APES student who is passing the course in May 2022 to take the AP exam on Friday, May 2, 2023 at 12 PM. These are lofty but attainable goals. With hard work, humility, and a deep appreciation for environmental science, we will accomplish these goals together.

AP Biology (26.0140010) 1 Credit

Prerequisite: Either Completion of Biology Honors or MAP Reading 95th+, MAP LA 95th+ MAP Science 95th+, Science Grade 95+

Textbook: Morris Biology for AP® Course

Framework:

https://apcentral.collegeboard.org/media/pdf/ap-biology-course-and-exam-description.pdf

Course Description: AP Biology is a college-level course, and thus, this class will move at a fast pace. You are expected to perform a significant amount of work outside of the classroom to keep up with the material. You are also expected to ask questions and participate in lecture when appropriate. AP Biology is the equivalent of a first-year introductory biology course. Our goals are

content mastery and an excellent score on the AP exam. We expect every AP Bio student who is passing the course in May 2025 to take the AP exam on Monday, May 5, 2025 at 12 PM. These are lofty but attainable goals. With hard work, humility, and a deep appreciation for biology, we will accomplish these goals together.

AP Chemistry (40.0530010) 1 Credit

Prerequisite: Advanced Algebra, Either completion of Chemistry Honors or Prev Science 95+, MAP Reading 95th+ , MAP Math 95th+
Corequisite: Enhanced Advanced Algebra and AP PreCalculus if not completed Advanced Algebra.
Textbook: Openstax Chemistry
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-chemistry-course-and-exam-description.pdf
Course Description: AP Chemistry is the equivalent of a first-year college-level general chemistry course, and thus, this class will move at a fast pace. It is one of the most difficult AP Courses. This course will follow the order of the AP Chemistry Course and Exam Description. The CED as well as the Course at a Glance can be downloaded from this link.

AP Physics I (40.0831010) 1 Credit

Prerequisite: Physics Honors**,** Pre/Co-requisite: Pre-Calculus Honors
Textbook: Cutnell & Johnson Physics 10e
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-physics-1-course-and-exam-description.pdf
Course Description: AP Physics 1 is a college-level course, and thus, this class will move at a fast pace. You are expected to perform a significant amount of work outside of the classroom to keep up with the material. You are also expected to ask questions—ask me and your peers. AP Physics 1 is the equivalent of a first-year college course in algebra-based physics. Our goals are content mastery and an excellent score on the AP exam. These are lofty but attainable goals. With hard work, humility, and a deep appreciation for physics, we will accomplish these goals together.

AP Physics C : Mechanics (40.0842011) 1 Credit

Prerequisite: Physics Honors **Pre/co-req:** AP Calculus BC
Textbook: Knight Physics for scientists & engineers 4e
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-physics-c-mechanics-course-and-exam-description.pdf
Course Description: AP Physics C Newtonian Mechanics is a college-level course, and thus, this class will move at a fast pace. You are expected to perform a significant amount of work outside of the classroom to keep up with the material. You are also expected to ask

questions—ask me and your peers. AP Physics C Newtonian Mechanics is the equivalent of a first-year college course in calculus-based physics. Our goals are content mastery and an excellent score on the AP exam. These are lofty but attainable goals. With hard work, humility, and a deep appreciation for physics, we will accomplish these goals together.

Zoology Honors (26.0710040) 1 Credit

Prerequisite:
Textbook:
Standards:
Course Description: Students will recognize key features of the major body plans that have evolved in animals and how those body plans have changed over time resulting in the diversity of animals that are evident today. In addition to classification and recognition, this course teaches students about the anatomical and physiological characteristics of animals. These characteristics relate to how an animal functions and can help students see the connections uniting particular animal groups. An understanding of form and function allows students to study how animals have evolved over time and to relate animals to their particular role in an ecosystem. Finally, students will develop an understanding that all living things are interconnected. Students should realize that the worldwide activities of humans can contribute to animal diversity both positively and negatively. It should also be understood that humans are dependent on animal species for advances in medicine, ecosystem maintenance, and food supply.

Oceanography Honors (40.0710040) 1 Credit

Prerequisite:
Textbook:
Standards:
Course Description: This course introduces the students to the study of the ocean composition and structure, the dynamics of energy flow within the ocean system, and the impact of human interaction with the ocean systems. The basic concepts of physical, chemical, geologic and biological oceanography are addressed by discussions on marine mineral resources, ocean energy, living resources of the sea, marine pollution and ocean management. Student will acquire practical laboratory and field experiences through the reading of charts, making basic measurements of seawater chemistry, examination of coastal geology, wave and beach processes, and marine organisms and habitats.

Epidemiology Honors (26.0650040) 1 Credit

Prerequisite: Biology Honors or AP Biology.
Textbook:
Standards:
Course Description: The epidemiology curriculum is designed to extend student investigations that begin in Biology. This curriculum is performance-based. It integrates scientific investigations using real world situations to find patterns and determine causation of pathological conditions.

Instruction should focus on the design, implementation, and evaluation of studies to increase students' media literacy and their understanding of public health. This course should expand their understanding of the scientific methods and develop critical thinking skills.

Essentials to Healthcare Honors (26.0730040) 1 Credit

Prerequisite:
Textbook:
Standards:
Course Description: The Essentials of Healthcare is a medical-focused anatomy course addressing the physiology of each body system, along with the investigation of common diseases, disorders and emerging diseases. The prevention of disease and the diagnosis and treatment that might be utilized are addressed, along with medical terminology related to each system. This course provides an opportunity to demonstrate technical skills that enforce the goal of helping students make connections between medical procedures and the pathophysiology of diseases and disorders. Students who earn 1 unit of credit for this course shall also receive 1 unit of credit for Human Anatomy and Physiology.

ENGLISH/LANGUAGE ARTS COURSES

Literature and Composition Honors (23.0610040) 1 Credit

Prerequisite: N/A
Textbook: 1. Holt, Elements of Literature: Third Course and 2. Vocabulary from Latin and Greek Roots (Level IX)
Standards:
https://www.georgiastandards.org/Georgia-Standards/Frameworks/ELA-9-10-Grade10-Literature-Composition-Standards.pdf
Course Description: This is a survey course of poetry, short stories, nonfiction, novels, and drama, mostly studied through integrated themes. Students will discuss and analyze various pieces in each genre.Several kinds of writings will be taken through the writing process to final products. Oral skills,grammatical concepts, and vocabulary study will be essential to the course. Each unit will be organized around an essential question that will be explored through readings, writing assignments, class discussions, presentations, etc. Grammar instruction will be integrated into the writing process, and vocabulary will be reviewed using the Greek & Latin Roots workbook. Students will gain experience with personal narrative, persuasive writing, research papers, poems, and short stories.

World Literature Honors (23.0620040) 1 Credit

Prerequisite: Literature and Composition Honors
Textbooks: 1. Holt, Elements of Literature: World Literature, and 2. Vocabulary from Latin and Greek Roots (Level X)
Standards:
https://www.georgiastandards.org/Georgia-Standards/Frameworks/ELA-9-10-World-Literature-Standards.pdf
Course Description: This is a survey course of World Literature. Throughout the year, students will read, discuss, and analyze poetry, short stories, nonfiction, novels, and drama, mostly studied through integrated themes. Such works will come from a variety of national and ethnic backgrounds. Several kinds of writings, including a researched report, will be taken through the writing process to final products. Narrative, analytical, informational, and argumentative pieces will be developed. The required research paper will be informational. Oral skills, grammatical concepts, and vocabulary study will be essential to the course.

American Literature Honors (23.0510040) 1 Credit

Prerequisite: World Literature Honors
Textbook: 1. HMH Into Literature, Grade 11, 2 volumes, and 2. Vocabulary from Latin and Greek Roots (Level XI)
Standards:
https://www.georgiastandards.org/Georgia-Standards/Frameworks/ELA-11-12-American-Literature-Standards.pdf
Course Description: Through this course, you will strengthen your reading, writing, speaking, and listening skills as outlined in the Common Core Standards, but we will go far beyond the standards. You will participate in Socratic Seminars on difficult topics and learn to engage articulately with your peers and the world around you. This course is structured chronologically, with an anchoring theme in each time period. Each unit will be organized around an essential question that will be explored through readings, writing assignments, class discussions, presentations, etc. Grammar instruction will be integrated into the writing process, and vocabulary will be reviewed using the Greek & Latin Roots workbook. Students will gain experience with personal narrative, persuasive writing, research papers, poems, and short stories.

AP English Language and Composition / American Literature (23.0530000) 1 Credit

Prerequisite: World Literature, SAT/PSAT reading 650+ or Teacher Rec
Textbook: 1. Patterns of Exposition, with the support of 2. The Elements of Style, and 3. The Hodges Harbrace
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-english-language-and-composition-course-and-exam-description.pdf

Course Description: According to the AP Central website, the goal of AP Language/Composition is, first and foremost, to help students become "skilled readers of prose written in a variety of rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes." These goals are achieved through a particularly mindful sort of reading and writing, with an attention to "the interactions among a writer's purposes, audience expectations, and subjects, as well as the way genre conventions and the resources of language contribute to effectiveness in writing." Students will study the craft of using language to communicate, reading novels, short stories and poems, but we will also be reading a wide variety of non-fiction: narratives, arguments, expository and descriptive pieces. Students will also expand our paradigm of reading to include the reading of images, both art and film. This class has been superimposed over American Literature. Students will explore traditional American Literature in many of the pieces covered in this course. This American flavor will enable students to frame their investigation into rhetoric with questions that matter: How has language shaped our collective and personal identities? How has language played a crucial role in creating who we are, what we stand for, what we do, and why we do it? Students will get the chance (many chances) to join in the civic discourse of our country, given the power of the language used by Americans such as Jefferson, Dickinson, O'Brien, Douglass, King, and others.

AP English Literature and Composition (23.0650010) 1 Credit

Prerequisite: AP Lang or American Lit., SAT/PSAT reading 650+ or Teacher Rec.
Textbooks: 1. The Norton Introduction to Literature (Kelly J Mays) and 2. Literature: An Introduction to Reading and Writing
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-english-literature-and-composition-course-and-exam-description.pdf
Course Description: AP English Literature approximates a freshman college English course. Students will be required to complete a series of compositions over the course of the next 36 weeks. Students are required to write both timed and processed compositions. Discussions of texts will be varied. Skills to be developed include: Explaining the function of character, setting, plot and structure, narrator or speaker, word choice, imagery, and symbols, comparison, and develop textually substantiated arguments about interpretations of a part or all of a text. First semester is dedicated to foundational studies of poetry and prose and close readings; second semester is focused on novel studies and drama (with prose passages and poetry integrated throughout).

Contemporary Literature & Advanced Composition Honors (23.0340043) 1 credit

[Previously known as Advanced Composition Honors]
Prerequisite: N/A
Standards:
https://www.georgiastandards.org/Georgia-Standards/Frameworks/ELA-11-12-Advanced-Composition-Standards.pdf

Course Description: This course will focus on a wide variety of writing forms, from literary non-fiction to short story to poems and more. Students will incorporate music, art, film, and other creative outlets into their writing, and students will be coached and encouraged to express themselves originally and thoughtfully. Peer reviews, workshopping, and sharing ideas are essential elements to this course

AP English 10: Seminar (23.03800) 1 Credit

Prerequisite: Literature & Composition Honors
Standards: TBA
Course Description: An English course taught in the AP Seminar style, English 10: AP Seminar helps students build foundational writing, collaboration, research, and presentation skills for future success in high school, college, and career.

SOCIAL STUDIES COURSES

World History Honors (45.0830040) 1 Credit

Prerequisite: N/A
Standards: Begin on page 98
https://lor2.gadoe.org/gadoe/file/38de4e22-a6ad-4a1c-a19f-5a22aa9f83f3/1/Social-Studies-High-School-Georgia-Standards.pdf
https://www.socialstudies.org/system/files/2022/c3-framework-for-social-studies-rev0617.2.pdf
Course Description: World History is structured around the investigation of selected themes woven into key concepts covering distinct chronological periods. History is a sophisticated quest for meaning about the past, beyond the effort to collect and memorize information. This course will continue to deal with the facts—names, chronology, events, and the like but it will also emphasize historical analysis. This will be accomplished by focusing on four historical thinking skills: crafting historical arguments from historical evidence, chronological reasoning, comparison and contextualization, and historical interpretation and synthesis.

US History Honors (45.0810040) 1 Credit

Prerequisite: World History Honors
Standards: Begin on page 75
https://lor2.gadoe.org/gadoe/file/38de4e22-a6ad-4a1c-a19f-5a22aa9f83f3/1/Social-Studies-High-School-Georgia-Standards.pdf
https://www.socialstudies.org/system/files/2022/c3-framework-for-social-studies-rev0617.2.pdf
Course Description: The Honors US History course covers United States history from Pre-Columbian societies through the present. We will look in depth at themes like politics and economic changes, social and cultural movements, and migration. Additionally, we will learn how to analyze historical sources and create an argument using historical evidence.

American Government Honors (45.0570002) 0.5 Credit

Prerequisite: N/A

Standards: Begin on page 3.
https://lor2.gadoe.org/gadoe/file/38de4e22-a6ad-4a1c-a19f-5a22aa9f83f3/1/Social-Studies-High-School-Georgia-Standards.pdf
https://www.socialstudies.org/system/files/2022/c3-framework-for-social-studies-rev0617.2.pdf

Course Description: Government and Politics is an honors-level course that provides students with the political knowledge and reasoning processes to participate meaningfully and thoughtfully in discussions and debates that are currently shaping American politics and society. It is important to note that this course is not a history course; it is a political science course that studies the interconnectedness of the difficult parts of the American political system as well as the behaviors and attitudes that shape this system and are the byproduct of this system.

Personal Finance and Economics Honors (45.0610041) 0.5 Credit

[Previously known as Macroeconomics Honors (45.061001)

Prerequisite: N/A

Standards: Begin on page 36
https://lor2.gadoe.org/gadoe/file/38de4e22-a6ad-4a1c-a19f-5a22aa9f83f3/1/Social-Studies-High-School-Georgia-Standards.pdf

Course Description: Honors Macroeconomics/Personal Finance and Economics is a semester-long course that will provide students with an introduction into the study of scarcity alongside personal financial decision making skills. Students will learn about supply and demand, fiscal and monetary policy, and how to prepare for the day they will begin to participate in the free market economy within the world around them.

AP World History (45.0811010) 1 Credit

Prerequisite: N/A

Framework:
https://apcentral.collegeboard.org/media/pdf/ap-world-history-modern-course-and-exam-description.pdf

Course Description: AP Modern World History is a challenging course that is structured around the investigation of selected themes woven into key concepts covering distinct chronological periods. AP Modern World History is equivalent to an introductory college survey course. The course has a three-fold purpose. First, it is designed to prepare students for successful placement into higher-level college and university history courses. Second, it is designed to develop skills of analysis and thinking in order to prepare students for success in the 21st century. Finally, it is the intent of this class to make the learning of modern world history an

enjoyable experience. Students will be able to show their mastery of the course goals by taking part in the College Board AP Modern World History Exam in May.

AP US History (45.0820010) 1 Credit

Prerequisite: World History Honors
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-us-history-course-and-exam-description.pdf
Course Description: In AP United States history, you will attain the skills and factual knowledge necessary to deal critically with the problems and challenges of United States history. The objective of this course is to increase the student's understanding of United States history with the goal of having each student pass the AP Examination in May. An emphasis is placed on interpreting documents, mastering a significant body of factual information, and writing critical essays. Students will learn to assess historical materials and consider evidence and interpretations presented in historical scholarship. Students will develop the skills to arrive at conclusions on the basis of informed judgment and present reasons and evidence clearly and persuasively in essay format.

AP Macroeconomics (45.0620011) 0.5 Credit

Prerequisite: N/A
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-macroeconomics-course-and-exam-description.pdf
Course Description: This course is designed as a rigorous college level course that pertains to the study of Macroeconomics. This course is an AP course that will help students prepare for their AP Macroeconomics exam that they will take alongside completing a Georgian requirement to learn economics in high school. Students will learn about the effects of supply and demand, fiscal and monetary policy as well as the big picture of global capitalism as a whole.

AP Government and Politics (45.05200) 0.5 Credit

Prerequisite: N/A
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-us-government-and-politics-course-and-exam-description.pdf
Course Description: AP U.S. Government and Politics is a college-level course that not only seeks to prepare students for success on the AP Exam, but also provides students with the political knowledge and reasoning processes to participate meaningfully and thoughtfully in discussions and debates that are currently shaping American politics and society. It is important to note that this course is not a history course; it is a political science course that studies the

interconnectedness of the difficult parts of the American political system as well as the behaviors and attitudes that shape this system and are the byproduct of this system.

WORLD LANGUAGES COURSES

Spanish I Honors (60.0710040) 1 Credit

Prerequisite: N/A
Standards: Need to purchase to access them.
https://www.actfl.org/educator-resources/ncssfl-actfl-can-do-statements
Course Description: One of the most important purposes of this course is to motivate students to learn a foreign language. Our goal is to produce bilingual professionals able to face the world with confidence. Spanish classes at Fulton Science Academy are designed so that students acquire skills in the areas of speaking, writing, listening, reading and comprehending the Spanish language. Mastering these basic skills will provide students with the tools needed to communicate in Spanish. Students will also gain understanding of Hispanic and Latin cultures and an awareness of the influence and importance that Spanish plays in today's global society. As levels increase, students will read, write, listen, and speak more in Spanish with advancing vocabulary, grammar, and cultural awareness moving from the goal of novice high to advanced low/advanced mid level on the ACTFL (American Council on the Teaching of Foreign Languages) scale.

Spanish II Honors (60.0720040) 1 Credit

Prerequisite: Spanish I Honors
Standards: Standards: Need to purchase to access them.
https://www.actfl.org/educator-resources/ncssfl-actfl-can-do-statements
Course Description: One of the most important purposes of this course is to motivate students to learn a foreign language. Our goal is to produce bilingual professionals able to face the world with confidence. Spanish classes at Fulton Science Academy are designed so that students acquire skills in the areas of speaking, writing, listening, reading and comprehending the Spanish language. Mastering these basic skills will provide students with the tools needed to communicate in Spanish. Students will also gain understanding of Hispanic and Latin cultures and an awareness of the influence and importance that Spanish plays in today's global society. As levels increase, students will read, write, listen, and speak more in Spanish with advancing vocabulary, grammar, and cultural awareness moving from the goal of novice high to advanced low/advanced mid level on the ACTFL (American Council on the Teaching of Foreign Languages) scale.

Spanish III Honors (60.0730040) 1 Credit

Prerequisite: Spanish II Honors
Standards: Need to purchase to access them.
https://www.actfl.org/educator-resources/ncssfl-actfl-can-do-statements
Course Description: One of the most important purposes of this course is to motivate students to learn a foreign language. Our goal is to produce bilingual professionals able to face the world with confidence. Spanish classes at Fulton Science Academy are designed so that students acquire skills in the areas of speaking, writing, listening, reading and comprehending the Spanish language. Mastering these basic skills will provide students with the tools needed to communicate in Spanish. Students will also gain understanding of Hispanic and Latin cultures and an awareness of the influence and importance that Spanish plays in today's global society. As levels increase, students will read, write, listen, and speak more in Spanish with advancing vocabulary, grammar, and cultural awareness moving from the goal of novice high to advanced low/advanced mid level on the ACTFL (American Council on the Teaching of Foreign Languages) scale.

Spanish IV Honors (60.0740040) 1 Credit

Prerequisite: Spanish III Honors
Standards: Need to purchase to access them.
https://www.actfl.org/educator-resources/ncssfl-actfl-can-do-statements
Course Description: One of the most important purposes of this course is to motivate students to learn a foreign language. Our goal is to produce bilingual professionals able to face the world with confidence. Spanish classes at Fulton Science Academy are designed so that students acquire skills in the areas of speaking, writing, listening, reading and comprehending the Spanish language. Mastering these basic skills will provide students with the tools needed to communicate in Spanish. Students will also gain understanding of Hispanic and Latin cultures and an awareness of the influence and importance that Spanish plays in today's global society. As levels increase, students will read, write, listen, and speak more in Spanish with advancing vocabulary, grammar, and cultural awareness moving from the goal of novice high to advanced low/advanced mid level on the ACTFL (American Council on the Teaching of Foreign Languages) scale.

AP Spanish Language and Culture (60.07700) 1 Credit

Prerequisite: Spanish IV or Teacher Approval
Standards:
https://apcentral.collegeboard.org/media/pdf/ap-spanish-language-and-culture-course-and-exam-description.pdf
Course Description: The AP® Spanish Language and Culture course is a rigorous course taught exclusively in Spanish that requires students to improve their proficiency across the three modes of communication. The course focuses on the integration of authentic resources including

online print, audio, and audiovisual resources; as well as traditional print resources that include literature, essays, and magazine and newspaper articles; and also, a combination of visual/print resources such as charts, tables, and graphs; all with the goal of providing a diverse learning experience. Students communicate using rich, advanced vocabulary and linguistic structures as they build proficiency in all modes of communication toward the pre-advanced level. Central to communication is the following premise from the Curriculum Framework: When communicating, students in the AP Spanish Language and Culture course demonstrate an understanding of the culture(s), incorporate interdisciplinary topics (Connections), make comparisons between the native language and the target language and between cultures (Comparisons), and use the target language in real-life settings (Communities).

Turkish I Honors (62.06100) 1 Credit

Prerequisite: N/A
Standards: Need to purchase to access them.
https://www.actfl.org/educator-resources/ncssfl-actfl-can-do-statements
Course Description: Designed to introduce students to a Turkish language and culture, Turkish Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

Turkish-II Honors (62.06200) 1 Credit

Prerequisite: Turkish I Honors
Standards: Need to purchase to access them.
https://www.actfl.org/educator-resources/ncssfl-actfl-can-do-statements
Course Description: Turkish Language II courses build upon skills developed in Turkish Language I, extending students' ability to understand and express themselves in a Turkish language (e.g., Turkish, Finnish, and Hungarian) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).

Turkish-III Honors (62.06300) 1 Credit

Prerequisite: Turkish II Honors
Standards: Need to purchase to access them.
https://www.actfl.org/educator-resources/ncssfl-actfl-can-do-statements
Course Description: The primary purpose of the Turkish Language Class is to prepare the students for a successful career in their life. To this end, you will develop Turkish speaking, listening, reading and writing skills while building a solid background in grammar and vocabulary and will also be ready for advanced level. Moreover, this class will improve the students'

sociological (communication skills with other nations, have a comprehensive knowledge of other cultures, join the global community etc.) and psychological (trains new areas of the brain, improve self confidence etc.) skills. As levels increase, students will read, write, listen, and speak more in Turkish with advancing vocabulary, grammar, and cultural awareness moving from the goal of novice high to advanced low/advanced mid level on the ACTFL (American Council on the Teaching of Foreign Languages) scale.

Turkish-IV Honors (62.06400) 1 Credit

Prerequisite: Turkish III Honors
Standards: Need to purchase to access them.
https://www.actfl.org/educator-resources/ncssfl-actfl-can-do-statements
Course Description: Turkish Language IV courses prepare students to communicate authentically by interpreting (reading, listening, viewing), exchanging (speaking and listening; reading and writing), and presenting (speaking, writing) information, concepts, and ideas on a variety of topics, including connections to other subject areas. This course promotes students' understanding of the relationships among the products, practices, and perspectives of the countries and cultures speaking the Turkish language.

PE / HEALTH COURSES

Health (17.0110001) 0.5 Credit

Prerequisite:N/A
Standards:
https://www.georgiastandards.org/Georgia-Standards/Documents/Health-Education-9-12-Georgia-Standards.pdf
Course Description: General Health is designed to teach students about personal health and how to make important decisions about their health. We will meet all of Georgia's standards to learning high school health which include- Alcohol and other drug use, Disease prevention, Environmental health, Nutrition, Personal health, Sex education/AIDS education, Safety, Mental health, Growth and development, Consumer health, Community health, Health careers, Family living, Motor skills, Physical fitness, Lifetime sports, Outdoor education, Fitness assessment. This class will put an emphasis on students acquiring knowledge and assuming responsibility for one's own health.

Personal Fitness (36.05100) 0.5 Credit

Prerequisite: N/A
Standards:
https://www.georgiastandards.org/Georgia-Standards/Documents/Physical-Education-9-12-Georgia-Standards.pdf

Course Description: Personal Fitness class is focused on weight training and physical fitness. The class will show students that everyone, not just athletes can be healthy and physically fit. Positive health-related fitness habits will be discussed and encouraged. Physical fitness is a huge part of being healthy and students will learn ways to lead a healthy life.

COMPUTER SCIENCE / TECHNOLOGY COURSES

AP Computer Science Principles (11.0190000) 1 Credit

Prerequisite: Algebra I, MAP Reading 90+, MAP Math 90+

Standards:

https://apcentral.collegeboard.org/media/pdf/ap-computer-science-principles-course-and-exam-description.pdf

Course Description:

AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. Learn the principles that underlie the science of computing and develop the thinking skills that computer scientists use. You'll work on your own and as part of a team to creatively address real-world issues using the tools and processes of computation. This class is equivalent to a first-semester introductory college course in computing, and students can earn college credit based on their AP scores. Recommended Prerequisite is a High school algebra course.

AP Computer Science A (11.0160010) 1 Credit

Prerequisite: Completed AP CSP, finished or concurrently taking Advanced Algebra , MAP Reading 90+ MAP Math 90+

Standards:

https://apcentral.collegeboard.org/media/pdf/ap-computer-science-a-course-and-exam-description.pdf

Course Description: AP Computer Science A at our school is a year-long course designed to meet or exceed the experience of an introductory first-semester college-level course in computer science.AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

Systems and Application of Artificial Intelligence Honors II (21.4450040) 1 Credit

Prerequisite: Advanced Algebra Honors

Framework:

Course Description: This advanced course explores the research and practical applications of Artificial Intelligence (AI). It includes a comprehensive examination of AI ethics, creation,

implementation, and current technological advancements, culminating in student-led passion projects.

Robotics & Automated Systems Honors (21.4450040) 1 Credit

Prerequisite: N/A
Framework:
Course Description: Upon completing this course, students will be able to apply their knowledge of computer-aided design (CAD), computer numerical control (CNC), robotics, computer-assisted manufacturing (CAM), programmable logic controllers (PLC), automated guided vehicles (AGV), and computer-integrated manufacturing (CIM). This is a hands-on course that emphasizes practical experience with these technologies.

AP Cybersecurity (11.4811000) 1 Credit

Prerequisite: N/A
Framework:
Course Description: A yearlong high school course that offers a broad introduction to the field and aligns closely with a college-level, introductory cybersecurity course. Students learn about common threats and vulnerabilities and how they combine to create risk. Students study how individuals and organizations manage risk and how risk can be mitigated through a defense-in-depth strategy. Students explore specific vulnerabilities, attacks, mitigations, and detection measures across a variety of domains including physical spaces, computer networks, devices, and data and applications. Throughout the course, students consider the impact of cybersecurity on individuals, organizations, societies, and governments. Content and skills taught in the course align with the professional skills outlined in the National Initiative for Cybersecurity Education Workforce Framework.

Systems and Application of Artificial Intelligence Honors I (11.4450040) 1 Credit

Prerequisite: Advanced Algebra Honors
Framework:
Course Description: This course highlights Artificial Intelligence through a blend of theory and hands-on practice. Beginning with Python, students explore machine learning, neural networks, NLP, computer vision, recommendation systems, and reinforcement learning. Advanced topics include GANs, diffusion models, embedded AI, and responsible AI design. Emphasis is placed on ethics, societal impact, and human-computer interaction. Students complete an independent project and maintain a digital portfolio, gaining both technical skills and ethical insight to tackle real-world AI challenges.

FINE ARTS COURSES

AP Music Theory (53.0230080) 1 Credit

Prerequisite: Although there is no prerequisite, it is suggested that a student have some musical knowledge and/or participate in an ensemble.
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-music-theory-course-and-exam-description.pdf
Course Description: AP Music Theory is an introductory college-level music theory course. Students cultivate their understanding of music theory through analyzing performed and notated music as they explore concepts like pitch, rhythm, form, and musical design

AP Studio Art: 2D Design Portfolio (50.08130) 1 Credit

Prerequisite: Teacher Approval
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-art-and-design-course-and-exam-description.pdf
Course Description: An in-depth college level course of studio work with 2D mediums. The yearlong focus is creating a portfolio with strong visuals that the student has a concise and personal statement about. Strong drawing skills, thinking outside of the box and an exemplary knowledge of the art elements and principles of design are a must.

Advanced Scientific Illustration Honors (50.04310) 1 Credit

Prerequisite: N/A
Course Description: Drawing and Illustration; with focus on Scientific and engineering will allow our students to conceive better models and ideas within the science departments, along with helping them to create their own images for scholastic works and research. By studying drawing and illustration the course will cover the history of illustration starting with the first illustrated manuscripts, through to Audubon and Charles Darwin. However, cultural differences are recognized, researched, celebrated, and imitated.

Visual Art/Comprehensive Honors (50.02110) 1 Credit

Prerequisite: N/A
Standards: Start on page 83
https://www.georgiastandards.org/Georgia-Standards/Documents/K-12-Visual-Art-Standards.pdf
Course Description: Introduces art history, art criticism, aesthetic judgment, and studio production. Emphasizes the ability to understand and use elements and principles of design through a variety of media, processes, and visual resources. Explores master artworks for historical and cultural significance.

Advanced Band Honors (53.03810) 1 Credit

Prerequisite: N/A

Standards: Start on Page 108
https://www.georgiastandards.org/Georgia-Standards/Documents/K-12-Music-Georgia-Standards.pdf
Course Description: 9th through 12th grade band is a performance-based class. Students will develop skills on a variety of orchestra/band instruments. Emphasis is given to providing a more advanced approach to their instrument. All students will participate in musical performances this year.

Theater Arts/Advanced Drama Honors (52.05100) 1 Credit

Prerequisite: N/A
Standards: Start on Page 27
https://www.georgiastandards.org/Georgia-Standards/Documents/K-12-Theatre-Art-Standards.pdf**Course Description:** Honors Drama is an enriching and dynamic high school theatre class that explores the fascinating world of theatre, exposing students to the magic and artistry of the performing arts. This course is designed for students who have an interest in theatre, whether they aspire to become actors, directors, playwrights, designers, or simply wish to deepen their understanding and appreciation for the performing arts

Advanced Orchestra Honors (53.05810) 1 Credit

Prerequisite: Ability to read music and perform at an appropriate level, open to students who play a string instrument (violin, viola, cello, or double bass)
Standards: Start on page 208
https://www.georgiastandards.org/Georgia-Standards/Documents/K-12-Music-Georgia-Standards.pdf
Course Description: The Orchestra Honors class is a performance-oriented course where students will actively develop their proficiency of orchestra instruments. Our primary focus is to cultivate a comprehensive foundation for each student's chosen instrument. Throughout the academic year, all students will engage in a series of musical performances, ensuring practical application of their growing skill sets and fostering a deeper appreciation for the art of orchestral music.

Sculpture Honors (50.06110) 1 Credit

Prerequisite: None
Framework:
https://case.georgiastandards.org/ims/case/v1p1/CFItems/400ac228-b9e9-11e9-ace6-0242ac150004
Course Description: Introduces the design and production of relief sculpture and sculpture-in-the-round. Emphasizes the historical origins and functions of sculpture in Western and non-Western cultures. Includes additive, subtractive, and modeling methods. Explores

traditional and nontraditional materials for sculpted works and the work of both historical and contemporary sculptural artists.

ELECTIVE COURSES

AP Research (35.0910050) — 1 Credit

Prerequisite: AP Seminar
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-research-course-and-exam-description.pdf
Course Description:AP Research is the final course in the AP Capstone process. You will build on skills you learned from AP Seminar and channel those abilities to produce original research. This will be unlike previous research projects you may have done in that you will choose what to research and investigate. This is a rare opportunity to turn your personal passion into a yearlong school project

Applied Engineering (21.4720041) — 1 Credit

Prerequisite: N/A
Course Description: Applied Engineering is a hands-on, project-based course designed for students to bring their innovative STEAM ideas to life. Meeting in the state-of-the-art Innovation Laboratory, students have access to cutting-edge technology and tools that support a wide range of engineering and design projects. From concept to creation, students work individually, applying critical thinking and problem-solving skills to transform their ideas into tangible prototypes and functional designs and products.
Throughout the course, students explore various engineering processes, including 3D scanning and reverse engineering with our advanced scanners, precision design and fabrication using our 3D printers, and specialized work with carbon fiber and resin printers for durable, high-performance components. A highlight of the course is the opportunity to learn and operate the Tormach 1500MX CNC mill, a professional-grade machine that introduces students to industrial manufacturing techniques.
This course encourages creativity, technical skills, and independence, with a strong emphasis on innovative and iterative design, testing, and refinement. Students gain real-world experience in engineering applications, preparing them for further studies and careers in STEAM fields.

AP Human Geography (45.0770010) — 1 Credit

Prerequisite: N/A
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-human-geography-course-and-exam-description.pdf

Course Description: AP Human Geography at our school is a yearlong course designed to meet or exceed the experience of an introductory one-semester college human geography course. The purpose of the course is to utilize geographic processes to systematically study and understand spatial patterns that are evident in the world in which we live. Case studies from around the world are used to compare situations locally, in the United States, and the world.

Current Topics Honors (45.0120040) — 1 Credit

Prerequisite: Social Studies curriculum completed in 9th, 10th, & 11th grades.
Course Description: Using current events, this elective course focuses on world, national, and local issues that affect students' everyday lives, such as economics, government, social issues, science, the environment, technology, and conflict. In this course, students will use newspapers, online media, and newscasts to support class discussion. Additionally, students will participate in individual current topics presentations and work with primary source materials and opinion pieces in order to better understand the world around them. Students will practice skills to distinguish between fact and opinion. They will analyze information to be able to recognize bias and points of view. Students will understand how people may have different views on information disseminated to them. Topics will be determined based on the most relevant current topics and student interests.

AP Psychology (45.016001) — 1 Credit

Prerequisite: Although there is no prerequisite, it is recommended that a student complete Biology first.
Framework:
https://apcentral.collegeboard.org/media/pdf/ap-psychology-course-and-exam-description.pdf
Course Description: AP Psychology is a full-year course that will provide students an introduction into the world of Psychology and its main focus is on the human body and mind. Students will learn about the seven different perspectives of Psychology and how they came to shape the research and experimental methods that Psychologists and Therapists utilize today in their study. At the end of the school year, students will take their AP Psychology exam which consists of 100 multiple choice and 2 Free Response Questions.

AP Seminar (23.03800) — 1 Credit

Prerequisite: Literature & Composition Honors
Framework: https://apcentral.collegeboard.org/media/pdf/ap-seminar-course-overview.pdf
Textbook(s): 1. MLA Handbook and 2. The Bedford Researcher
Course Description: AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing

artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

Journalism Honors (Yearbook) 1 Credit

Prerequisite: N/A
Standards:
https://www.georgiastandards.org/Georgia-Standards/Documents/ELA-9-12-Journalism-Georgia-Standards.pdf
Course Description: In Journalism, students will work together to creatively document and celebrate the school year through the creation of the STAMPEDE yearbook. Participants will capture memorable moments using our photography equipment, create visually appealing layouts using design software, and develop engaging articles and captions to tell compelling stories. Collaborating in various roles, students will enhance their communication and project management skills, ultimately producing a cherished yearbook that reflects the unique spirit of their school community and leaves a lasting legacy for their peers. Join this class to help be a part of our school legacy!

AP Business with Personal Finance (07.42900) 1 Credit

Prerequisite: N/A
Standards:
Course Description: AP Business with Personal Finance is an introductory, college-level business and personal finance course. Students explore the business disciplines of entrepreneurship, marketing, finance, accounting, and management through real-world business application, case studies, and project-based learning. In addition, students learn and apply all the National Standards for Personal Financial Education created by the Council for Economic Education and the Jump$tart Coalition for Personal Financial Literacy.

Debate and Public Speaking (23.0420040) 1 Credit

Prerequisite: N/A
Standards:
Course Description: This course focuses on developing public speaking skills. The students will identify effective methods to arrange ideas and information in written form and then convert the written form into an effective oral delivery. The course focuses on critical thinking, organizing ideas, researching counter viewpoints, and communicating appropriately for different audiences and purposes. The students analyze professional speeches to enhance their knowledge of solid speech writing. This course reflects grade-level appropriate Georgia Standards of Excellence.

The Individual and the Law (45.0560040) 1 Credit

Prerequisite: N/A
Standards:
Course Description: Analyzes the foundations and functions of the American legal system. Examines types of laws, the individual's relationship to the law and major court decisions. Integrates and reinforces social studies skills. Students will also participate in public speaking and debate within the classroom.

Business Communication Honors (07.4510040) 1 Credit

Prerequisite: N/A
Standards:
Course Description: This course explores the value of communication in personal and professional contexts, emphasizing effective speaking, writing, listening, and digital presence. Students will create, edit, and publish professional business documents, applying clear, concise, and persuasive communication. The course develops leadership, teamwork, and presentation skills, with hands-on practice using various technologies and software. Ethical, legal, and problem-solving considerations are addressed, and employability skills are integrated throughout to prepare students for college and careers.

Investments Honors (07.4310040) 1 Credit

Prerequisite: N/A
Standards:
Course Description: Students explore the financial world, including banking, investing, and insurance. The course covers money and credit basics, financial performance analysis, investment strategies, risk management, and insurance selection for individuals and businesses. Ethical issues, industry regulations, and career opportunities in financial services are examined. Hands-on projects, stock market simulations, guest speakers, and community partnerships provide practical experience. Technology, internet research, and participation in Future Business Leaders of America (FBLA) develop professional and employability skills, preparing students for college and careers in finance.

AP Workload Information

Advanced Placement classes require a significant time commitment outside of school, as the workload for an AP class is intended to be comparable to a college course. Students who wish to take multiple AP classes should consider the time needed to do the work for each of the classes with respect to the time needed to pursue other after-school interests. The following information is intended to help students and their families make well-informed decisions and healthy choices

with regard to the student's academic and extracurricular pursuits. Most of these classes require a summer assignment.

	Homework Expectations	Major Assessments	Other Notes
Biology	One hour of homework and/or independent study per class. This includes reading journal articles, analyzing data, revising notes, integrating student notes with lecture material, and practicing free-response questions.	4-5 unit exams per semester that are cumulative, as well as a Final Exam. Labs every 2-3 weeks with either a formal or informal lab assessment. Writing Task: Include both short and long Free Response Questions as are required on the AP Biology Exam.	This course is content-heavy and requires super analytical skills, especially in the areas of reading and writing.There's a significant amount of details and concepts to keep track of. The class involves sequential learning, so frequent absences can be challenging.
Calculus AB	Students should plan for one hour of homework each day. Tutoring support is available during club time on Mondays and Thursdays, and quick help with daily homework questions is offered every day during Mustang Time.	In the first semester, there will be five unit exams covering Units 1-5 of the AP Calculus AB curriculum in College Board order. If time allows, we may begin Unit 6 before winter break. Units 6-8 will be completed by late March, followed by at least three weeks of review before the AP exam. Each semester will conclude with a final exam structured as a mock AP exam.	This course builds on concepts sequentially, making consistent attendance essential for success.

Calculus BC	Students should expect at least one hour of homework daily. Tutoring is available during club time on Mondays and Thursdays, as well as daily during Mustang Time for quick questions on homework.	In the first semester, there will be 5-6 unit exams. The AP Calculus BC course will complete Units 1-8 from the AP Calculus AB curriculum following College Board's sequence. BC-specific topics from Units 6-10 will be covered by late March, followed by at least three weeks of review before the AP exam. Each semester will conclude with a final exam structured as a mock AP exam.	This course builds on concepts sequentially, making consistent attendance essential for success.
Chemistry	1 hr of homework per day and/or independent study per class (includes problem sets and recommended videos/reading). This might become 1.5-2 hrs per class if student is absent and is making up work.	Labs every 1-2 weeks with a lab report, 2 tests per quarter with additional quizzes, full practice test and lab practicum fourth quarter.	The class involves sequential learning, so frequent absences can be challenging. Students should have mastered fundamental chemistry skills (e.g. nomenclature, balancing equations, periodic table etc.) prior to starting class; summer review of these skills is required. This course requires a strong background in mathematics. Students should have completed Algebra II before taking this course.

Computer Science Principles	Much of the work is done in class as a series of experiences. Homework generally takes 1-3 hours per week, depending on the unit. Some units may require more practice. It's important for students to stay engaged, as topics build on each other and missing classes can make it hard to catch up.	Each semester, students will have five unit tests along with a final exam. Units also include a combination of short-term and long-term programming projects. In the second semester, students will complete the Create Performance Task for the AP exam in class. This task requires students to create a program, produce a short video, and write a personalized project reference paper. Students will have frequent multiple-choice and free-response question practice throughout each unit to prepare for the AP exam. Units will be completed by March, after which students will spend significant time working on mock exams until the AP exam date in mid-May.	This course introduces computer science basics and explores technology's impact on our lives. Students will engage in programming, teamwork, and problem-solving activities. A strong foundation in Algebra I is required. Students with good math skills and a genuine interest in coding tend to succeed, while those lacking in either area may struggle.The course requires students to take ownership of their learning, being responsible for both independent work and collaboration. Though this course may seem easy to some, achieving a score of 5 on the AP exam requires consistent effort.
Computer Science A	Homework varies depending on the unit, with some units requiring daily assignments while others may involve weekly work. On average, students should expect 2-3 hours of homework per week. The	Students will have five unit tests and quizzes per semester, as well as a final exam. Each unit will include frequent multiple-choice questions and free-response questions to prepare students for the AP exam format. Units are	AP CSA is for students who have a strong interest in programming and solid math problem-solving abilities. The course emphasizes object-oriented programming in Java, with a focus on problem-solving and algorithm development. A foundation in Algebra II and prior programming experience are required to

	workload can increase based on the complexity of the material covered. Missing classes is highly discouraged, as concepts build sequentially, making it difficult to catch up.	completed by mid-March, and the remaining time is used for extensive AP exam practice, including mock exams to solidify understanding and readiness. Additionally, students will complete both short-term and long-term projects in various units to apply their learning in practical contexts.	be successful in this course. The course requires students to take ownership of their learning, being responsible for both independent work and collaboration.
English Language and Composition	1-3 hrs of homework per class. Each missed class dramatically reduces a student's chances of mastering the complex material contained in the English AP curriculum.	Midterm exam, vocabulary test every fifth week, one paper per week, scholar pack cards, book talks (requires reading two complete nonfiction books)	The course is designed for students who have mastered the conventions of Standard Written English in the areas of grammar, spelling, and punctuation. The students for whom these courses are recommended are those who have spent a good deal of time reading widely and deeply in both fiction and non-fiction genres.

English Literature and Composition	Typically 3-5 hrs of homework a week, consisting of reading, writing, or studying. Occasional project collaboration (in person or online) outside of class.	Four major essays taken through the writing process each semester; first semester, bi-weekly poetry response essays; poetry response notebook; 4 or more in-class analysis essays each semester; 2-4 projects each semester; weekly analyses alternating prose and poetry second semester;	This course is suited for students who have an interest in reading, discussing and writing about significant literary works. Previous experience with expository writing and challenging texts is strongly recommended. In class participation is essential to one's success in AP Literature and Composition. In addition, students are expected to manage complex assignments outside of class. Students do close readings of poetry, short stories, prose passages, novels, and plays.

		summer assignment; objective test-taking practice throughout the year. Students take three complete AP Lit tests: a pre-test, first semester final, and second semester final/practice test. Vocabulary study (AP target words) both semesters. Major Readings: Summer - 3 works (2 novels, 1 play); First Semester - 1 independent novel; Second Semester - 5 works (2 novels, 3 plays)	
Physics 1: Algebra-Based	3 hours of homework per assignment almost every week, assuming students are present for notes and example calculations. Homework time is generally doubled for missed classes.	Classes consist of lectures, practice & classwork, lab work, and tests. There are 4 tests per semester as well as the final exam.	The class involves sequential learning, failing to grasp a beginning concept or frequent absences can be challenging. Students that have taken Honors Physics will already have a basic knowledge of the topics being covered, and will thus have an easier time with the course. Taking AP Calc during/before AP 1 can make some of the mathematical concepts & equations easier to understand. The AP credit generally only counts for a general physics credit (non-STEM degrees)

Physics C: Mechanics (Calculus based)	3 hours of homework per assignment with 1 assignment every week or 2 weeks, assuming students are present for notes and example calculations. Homework time is generally doubled for missed classes.	Classes consist of lectures, practice & classwork, lab work, and tests. There are 3 tests per semester as well as the final exam.	The class involves sequential learning, failing to grasp a beginning concept or frequent absences can be challenging. Students that have taken Honors Physics or AP Physics 1 will already have a basic knowledge of the topics being covered, and will thus have an easier time with the course. Is generally more difficult for students taking AP Calc & AP Physics C at the same time, as we will immediately start talking about derivatives and integrals.
Spanish Language and Culture	1 -2 hr of homework per class consisting of reading, writing or studying. Occasionally (approx. 5 times per quarter) presentations will require up to 1.5 hrs. Style of tasks vary and depending on personal strengths and weaknesses. Students may spend less or significantly more time on specific tasks.	Daily AP style tasks (Formal email writing, Essay, Cultural comparison, Simulated conversation, etc.); 1-3 essays and formal email writing per quarter; Practice exam before AND after spring break vacation.	It is assumed that students have a high level of mastery of grammatical concepts before entering the course. Course resources (listening and reading selections) are all sources that are intended for native speakers. Much class work is done in pairs, so missing class can result in making up work without the benefit of a partner.
Statistics	45 min of homework every day	Assessment includes quizzes, FRQ & MCQ solvings, quick checks,projects, and unit tests(6 unit tests in the first semester and 6 unit tests in the second semester)	Students must have completed Algebra 2 to enroll in AP Statistics. Strong math and comprehension skills are essential for success in this rigorous course, which requires deep engagement with content and active participation. Students should be prepared for a college-level workload that includes independent study, homework, and collaborative projects. Essential skills include

		Final exam will be a mock exam both semesters.	strong organization, time management, maturity in problem-solving, and logical reasoning, as the course focuses on data interpretation and real-world applications of statistical concepts. st have completed Honors Algebra 2 to enroll in AP Statistics. Strong math and comprehension skills are essential for success in this rigorous course, which requires deep engagement with content and active participants. Students must have completed Honors Algebra 2 to enroll in AP Statistics. Strong math and comprehension skills are essential for success in this rigorous course, which requires deep engagement with content and active participation. Students should be prepared for a college-level workload that includes independent study, homework, and collaborative projects. Essential skills include strong organization, time management, maturity in problem-solving, and logical reasoning, as the course focuses on data interpretation and real-world applications of statistical concepts. must have completed Honors Algebra 2 to enroll in AP Statistics. Strong math and comprehension skills are essential for success in this rigorous course, which requires deep engagement with content and active participation. Students should be prepared for a college-level workload that includes independent study, homework, and collaborative projects. Essential skills include strong organization, time management, maturity in problem-solving, and logical reasoning, as the course focuses on data interpretation and real-world applications of statistical concepts.AP Statistics is a demanding course that requires students to engage deeply with content, participate in discussions,

			and approach complex problems with persistence and determination. Students should be prepared to commit to a rigorous workload that includes independent study and collaborative projects.
US Government And Politics	1-2 hrs of homework per class. This includes readings from the text, primary and secondary source documents, and keeping up with local, state, and national news.	Weekly Current Events Project, Formal Debates, Civics Projects, Supreme Court Case Briefings, Campaign and Election Project, and Mock Trial Unit Test: 3 Major Test 1st Semester and 2 Major Test 2nd Semester. Writing Task: Include both short and long essays as are required in the AP US Government Exam	Students should be prepared to have daily class discussions and debates in class about politics and government. I expect all students to be respectful of everyone's opinions and learn how to respectfully engage with differing opinions. The Socratic Method is used frequently in AP US Gov as students will be asked to critically think about the current form of government and politics and give their opinion in a respectful manner.
US History	Typically 1-2 hrs of homework per class. Consists mainly of assigned readings in a college level text, other secondary sources and historical documents along with completing guided reading written assignments for use in class discussion. Students are required to complete a summer assignment for	Per semester: 3 major exams (cover multiple, 4-5, chapters), a final exam worth a significant portion of the student's grade, writing tasks that include both long essays and short response as are required in the AP US HISTORY EXAM.	This course is content-heavy and requires superb analytical skills, especially in the areas of reading and writing. It also mimics the skill-set of the professional historian while maintaining college-level expectations.

	placement in the course.		
Modern World History	Typically 1-2 hrs of homework per class. Consists mainly of assigned readings in a college level text, other secondary sources and historical documents along with completing guided reading written assignments for use in class discussion. Students are required to complete a summer assignment for placement in the course.	Per semester: 3 major exams (covers multiple, 4-5, chapters), a final exam worth a significant portion of the student's grade, writing tasks that include both long essays and short response as are required in the AP Modern WORLD HISTORY EXAM.	This course is content-heavy and requires superb analytical skills, especially in the areas of reading and writing. It also mimics the skill-set of the professional historian while maintaining college-level expectations.

Macroeconomics	Typically 30 minutes of homework per class, consisting of worksheets for extra practice, practice problems from AP Classroom and the textbook and other assigned materials. Students will also be expected to take notes in class from the lectures and discussions and will turn those in	Assessments include 4 Major tests covering all 6 units, Units 2 and 3, 4 and 5 are combined tests. Weekly Vocabulary Quizzes to assist in memorizing words FRQs are included in the Major Unit tests to prepare students for their upcoming AP Exam.	The class involves sequential learning, failing to grasp a beginning concept or frequent absences can be challenging. This class is math intensive, although simple math equations to relatively more difficult equations, but does require a good background in math. Also, reading intensive as all AP courses are.

	for a grade as well.		
Psychology	Students will take Textbook notes for all 5 units starting with Unit 0 outside of class over the summer to help prepare them for the work ahead. Overall, students will take roughly 100 pages of notes. Students will also work on small projects throughout the semester and roughly 30 minutes to 1 hours worth of homework from worksheets assigned in class. AP Classroom Progress Checks are provided as extra practice alongside the textbook.	Students will take roughly 8 tests per year and each test will be a mixture of FRQ questions and MCQ questions to better prepare students for their AP exam in May. Students will also have a major project that will act as a test grade in the second semester they will work on for 2 weeks before presenting.	AP Psychology is often considered an easy AP course. This is not true in my experience. Past students of mine have been disappointed when they realized it was the same amount of work and difficulty as a regular AP. I want people to take this course, but please don't take it expecting an "easy" class. Notes and vocabulary may be typed but must be originally written. This means you cannot copy any words from the text and must state everything in your own terms. I enforce plagiarism very strictly. Psychology is listed as a social studies course, but it is a science. Expect to learn about anatomy, the scientific method, modes of experimentation, and some math.
Human Geography	Typically .5 hrs of homework per class. (averages about 2.5 hours per week) Consists mainly of assigned readings in a college level text, and other	Per semester: The course consists of 7 units of study. Students have unit exams after each. Students develop and demonstrate writing skills for the SHORT RESPONSE QUESTIONS they will encounter on the AP	This course is typically new content for 9th grade students. They develop analytical skills, especially in the areas of reading and writing to prepare them for continuing in AP level social studies courses through high school.

	secondary sources along with completing guided reading written assignments for use in class discussion. Students work to develop a working knowledge of the specialized vocabulary of the subject. Students are required to complete a summer assignment for placement in the course.	exam. Students have a final exam worth a significant portion of the student's grade. Students develop and demonstrate their knowledge of world geography.	
Seminar	First semester, students typically spend about 5 hours a week researching, working with groups outside of class, writing, and practicing for presentations. Second semester mostly requires about the same, but students are known to spend up to 8 hours a week during crunch times.	This course is writing and research intensive. First semester, students write a formal summary, an annotated bibliography, a researched argumentative essay, a researched problem-solution essay, and participate in at least two presentations. Second semester, students work in groups to create and participate in a researched argumentative presentation, write an individual research report based on the presentation, research	Students for this course should be self-motivated and self-disciplined. They should be inquisitive about a variety of topics and enjoy doing formal research to answer questions related to current issues of conversation. Additionally, since group work and cooperative skills are emphasized, students should both enjoy and thrive in collaborative situations. Presentations are also essential to the course, so students should be ready to work on presentation skills.

		and write an individual argumentative and create a presentation on the topic. Students also practice impromptu analysis and synthesis to prepare for the course's EOCT. Students are required to complete a summer assignment.	
Music Theory	30-45 minutes of homework per night. Homework can consist of written music theory, developing ear training skills, conducting work, and/or compositional focus	There will be eight unit tests with four of them each semester. The winter semester will have a midterm exam, and the spring semester will have a final project. The final project will be to analyze a full piece of music and conduct the piece to one of the FSA ensembles (Band/Orchestra) at the annual Spring concert	There is no formal prerequisite, but it is highly recommended that students have a high-school level understanding of music and actively participate in private lessons and/or an ensemble (band, orchestra, or chorus).
Art and Design	Homework outside of projects are not usually assigned. This is due to the students having to produce many pieces of artwork. Though, it is expected that students continue working outside of the classroom 30 minutes to an hour a day.	Students will have project grades throughout the year for class. The "exam" at the end of the year is a portfolio containing 8-10 pieces of art. For the entire year students are researching and exploring a sustained investigation of their choice. This portfolio is graded based on four categories.	This is a more intensive art class than honors course. The students are graded by outside judges based on a rubric. The students entering this course should already have an art style of their own that they can explore more. Students should take at least one art class at the high school level before joining AP Art.

		The second part of the AP exam is a selected works portion. Students will choose their five strongest pieces of work to be graded on the artistic skill level.	
Research	Homework - outside of the necessary research that must be conducted to complete your project - is not normally assigned. However, any assignments that are assigned outside of classroom hours usually will not total more than 30 minutes per day and will be in the form of AP Classroom videos and written reflections/essays.	This course culminates in a large, thesis-style research project. In order to pass the course, students must write a 4,000-5,000 research paper about a study of their own design and give a 20-minute presentation with an oral defense. Throughout the year, other projects will be given to the students in order to practice their presentation skills and public speaking. Additionally, “progress checks” will be graded as assessments in order to ensure that the research paper is being written in a timely manner and that the study if being completed.	This course is largely independently-driven. The instructor works in the capacity of an advisor, not a teacher. Students are expected to create a study, conduct the experiment, and report on their findings independently. If a student struggles with time management or intrinsic motivation, this course may prove very challenging and overwhelming. Students must have strong, professional writing skills. Additionally, students must have developed strong public skills. The prerequisite for this course is AP Seminar.

3. INACTIVE COURSES

Accelerated Algebra I and Geometry A Honors (27.0975040) Inactive — 1 Credit

Prerequisite: N/A

Textbooks used:

-Algebra 1: Common Core (Charles et al. - Pearson Education, Inc., 2015)
-Geometry: common core (Charles - Pearson Education Inc., 2015)

Course Description: The fundamental purpose of Accelerated Algebra I/Geometry A is to formalize and extend the mathematics that students learned in the middle grades. The critical areas, organized into units, deepen and extend understanding of functions by comparing and contrasting linear, quadratic, and exponential phenomena. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Students gain a foundation in linear, quadratic, and exponential functions before they are brought together to be compared/contrasted in Unit 5 (Comparing and Contrasting Functions). As key characteristics of functions are introduced in unit 2 (Reasoning with Linear Equations and Inequalities) and revisited within units 3, 4, and 5, students will gain a deeper understanding of such concepts as domain and range, intercepts, increasing/decreasing, relative maximum/minimum, symmetry, end behavior, and the effect of function parameters. Unit 5 will also provide an excellent opportunity for review of many concepts in preparation for the final exam. Unit 7 begins the study of geometry concepts by building upon work students have done in 8th grade. Unit 8 continues to build upon previous foundation to build a formal understanding of similarity and congruence. The last unit of the course builds upon similarity and the Pythagorean theorem in the study of right triangle trigonometry.

Discrete Math Honors A (27.0850041) Inactive — 0.5 Credit

Prerequisite: Pre-calculus

Textbook: Cengage Discrete Mathematics with Applications

Standards (come from multiple sources):

https://www.georgiastandards.org/Georgia-Standards/Frameworks/Advanced-Mathematical-Topics-Standards.pdf

and https://math.gatech.edu/courses/math/2603

Course Description: Discrete Mathematics is a foundational course for computer science, mathematics, and related fields. This honors-level course builds upon the standard Discrete Mathematics curriculum and delves deeper into the topics with additional challenges and advanced problem-solving techniques. The course will cover fundamental concepts in discrete mathematics, including logic, set theory, relations, functions, combinatorics, graph theory, and mathematical reasoning. The focus will be on developing problem-solving skills, rigorous proof techniques, and a deeper understanding of the theoretical underpinnings of the subject.

Geometry Honors (27.0972040) Inactive — 1 Credit

Prerequisite: Algebra I Honors

Course Description: In this course, students will use transformations and proportional reasoning to develop a formal understanding of similarity and congruence. Students will identify criteria for similarity and congruence of triangles, develop aptitude with geometric proofs (in a variety of formats), and use the concepts of similarity and congruence to prove theorems involving lines, angles, triangles, and other polygons. Students will apply similarity in right triangles to understand right triangle trigonometry, and will use the Pythagorean Theorem and the relationship between the sine and cosine of complementary angles to solve problems involving right triangles. Students will understand and apply theorems about circles, develop and explain formulas related to circles and the volume of solid figures and use the formulas to solve problems. Students will analyze quadratic functions, and solve quadratic equations by taking square roots, factoring, completing the square, and using the quadratic formula. Students will formalize the rules of probability and use the rules to compute probabilities of compound events in a uniform probability model

Topics covered in this mathematics course:

The Geometry course represents a discrete study of geometry with correlated statistics applications. The standards in the three-course high school sequence specify the mathematics that all students should study in order to be college and career ready. Additional mathematics content is provided in fourth credit courses and advanced courses including pre-calculus, calculus, advanced statistics, discrete mathematics, and mathematics of finance courses. Students gain an understanding of figures found in our three dimensional world and their connections to mathematics. Students will learn the language of geometry, the coordinate plane, slope, reasoning, proofs, angles, perpendicular and parallel lines, congruent triangles, triangle inequalities, and similarity.

Algebra II Honors (27.0973040) Inactive — 1 Credit

Prerequisite: and Geometry: Concepts & Connections

Standards:

Course Description: This course will cover all of the content in the second course of High School Algebra. The main purpose of this course is to tie together key concepts from number theory, algebra, geometry, and probability in a way that sets students up for success in future classes such as Pre-Calculus, Calculus, and AP Calculus or AP Statistics. This course will cover the following topics, some of which may be familiar from previous Algebra courses (but will be covered in greater depth): Quadratics, Operations with Polynomials, Polynomial Functions, Rational and Radical Relationships, Exponential Equations and Logarithms, Mathematical Modeling, Inferences and Conclusions from Data

Accelerated Algebra I/Geometry A Honors (27.0975040) Inactive — 1 Credit

Prerequisite: N/A

Course Description: The fundamental purpose of Accelerated Algebra I/Geometry A is to formalize and extend the mathematics that students learned in the middle grades. The critical areas, organized into units, deepen and extend understanding of functions by comparing and contrasting linear, quadratic, and exponential phenomena. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Students gain a foundation in linear, quadratic, and exponential functions before they are brought together to be compared/contrasted in Unit 5 (Comparing and Contrasting Functions). As key characteristics of functions are introduced in unit 2 (Reasoning with Linear Equations and Inequalities) and revisited within units 3, 4, and 5, students will gain a deeper understanding of such concepts as domain and range, intercepts, increasing/decreasing, relative maximum/minimum, symmetry, end behavior, and the effect of function parameters. Unit 5 will also provide an excellent opportunity for review of many concepts in preparation for the final exam. Unit 7 begins the study of geometry concepts by building upon work students have done in 8th grade. Unit 8 continues to build upon previous foundation to build a formal understanding of similarity and congruence. The last unit of the course builds upon similarity and the Pythagorean theorem in the study of right triangle trigonometry.

Accelerated Geometry B/ Algebra II Honors (27.097604) Inactive — 1 Credit

Prerequisite: Algebra I Honors and Geometry A

Course Description: It is in Accelerated Geometry B / Algebra II that students pull together and apply the accumulation of learning that they have from their previous course, with content grouped into nine critical areas, organized into units. Students continue to work with geometry concepts as the work with circles and theorems related to them. The students then move onto applying the geometric concepts they have previously learned in the coordinate plane in finding distances and writing equations of circles. They then build upon the probability concepts they learned in middle school. Students expand their repertoire of functions to include quadratic (with complex solutions), polynomial, rational, and radical functions. And, finally, students bring together all of their experience with functions to create models and solve contextual problems. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Special emphasis will be on the Circles and Volume, Geometric and Algebraic Connections, Applications of Probability, Quadratics Revisited, Operations with Polynomials, Polynomial Functions, Rational & Radical Relationships, Exponential & Logarithms and Mathematical Modeling.

Multivariable Calculus A Honors (27.0770010) Inactive — 0.5 Credit

Prerequisite: AP Calculus BC

Course Description: This course covers vectors in dimensions 2 and 3, vector-valued functions of one variable, scalar-valued functions of several variables, partial derivatives, gradients,

optimization, Lagrange multipliers, double and triple integrals, line and surface integrals, vector calculus.

During this course, students gain an understanding of

- Multidimensional spaces: coordinate systems, vectors, dot product, cross product, lines and planes.
- Vector functions: limits, derivatives, and integrals of vector functions; velocity and acceleration.
- Multivariable differentiation: partial derivatives, directional derivatives, gradients, critical points and the second derivative test, maximum and minimum values, method of Lagrange multipliers.
- Multivariable integration: double and triple integrals, line and surface integrals, Green's theorem, Stokes' theorem, and the divergence theorem.

Music Ensemble (51.06800) Inactive — 1 Credit

Prerequisite: Ability to read music and perform at an appropriate level, open to students who play string, wind, brass and percussion instruments (piano included).
Course Description: Music ensemble is a performance-based class that requires all students to participate in musical performances each semester. Students will develop skills on a variety of orchestra/band instruments and the emphasis is given to providing a more advanced approach to their instrument. Students will experience music as a soloist and in group performance and be more comfortable playing a musical instrument and participating in musical activities. Music Ensemble participants will achieve a higher level of responsibility, self-discipline, and learn to work as a single unit.

AP Spanish Literature and Culture (60.0811010) Inactive — 1 Credit

Prerequisite: AP Spanish Language and Culture or Spanish IV Honors or teacher approval
Course Description: The AP Spanish Literature and Culture course is a rigorous course taught exclusively in Spanish that requires students to improve their proficiency across the three modes of communication. The course focuses on the integration of authentic resources including online print, audio, and audiovisual resources; as well as traditional print resources that include literature, essays, and magazine and newspaper articles; and also, a combination of visual/print resources such as charts, tables, and graphs; all with the goal of providing a diverse learning experience. Students communicate using rich, advanced vocabulary and linguistic structures as they build proficiency in all modes of communication toward the pre-advanced level. Central to communication is the following premise from the Curriculum Framework: When communicating, students in the AP Spanish Language and Culture course demonstrate an understanding of the culture(s), incorporate interdisciplinary topics (Connections), make comparisons between the native language and the target language and between cultures (Comparisons), and use the target language in real-life settings (Communities).

Research Honors (21.4610040) Inactive — 1 Credit

Prerequisite: N/A

Standards:
https://www.georgiastandards.org/standards/Georgia%20Performance%20Standards%20CTAE/Research,%20Design%20and%20Project%20Management%20ENGR.pdf

Course Description: The course is designed to provide students with a foundational understanding of the philosophy of science and its implications for research methods. Students will gain hands-on experience conducting independent research projects, working collaboratively with the faculty, and/or participating in ongoing research initiatives, such as the Cube Satellite Research and Development Program or focusing on their independent research topics.
Upon completion of the course, students will have a comprehensive understanding of the philosophical underpinnings of science and the practical skills necessary to conduct research effectively and ethically. They will also have gained experience working in a collaborative research environment and contributing to ongoing scientific endeavors. As part of this course, students must complete research projects that align with their research questions and interests. The research will be conducted over the period of the year. Students are expected to produce a literature review or review article in the first half of the year and turn their research results into a publishable paper by the end of the year. Furthermore, at the end of the year, students will present their research at the Student Research Conference at the FSA, which the faculty, students, and parents will attend.

Forensic Science Honors (40.0930043) Inactive — 0.5 Credit

Prerequisite: N/A

Standards:
https://www.georgiastandards.org/Georgia-Standards/Documents/Science-Forensic-Science-Georgia-Standards.pdf

Course Description: This honors-level course is designed to build upon science concepts from previous courses and apply science to the investigation of crime scenes. Students will begin this course learning crime scene basics, including the differences between and importance of various members of the crime scene investigation unit, the importance of concrete circumstantial evidence as opposed to faulty eyewitness testimony accounts, how to process a crime scene, how to sketch a crime scene, different evidence collection methods, and how crime scene photographs are taken. After becoming experts on the basics, students will study various methods of trace evidence (hair and fiber) collection, blood evidence, DNA fingerprinting evidence, and even death investigation. Students will learn the scientific protocols for analyzing a crime scene, chemical and physical separation methods to isolate and identify materials, how to analyze biological evidence, and the criminal use of tools, including impressions from firearms, tool marks, arson, and explosive evidence.

Genetics Honors (26.0150041) Inactive — 0.5 Credit

Prerequisite: Biology Honors
Standards:
https://www.georgiastandards.org/Georgia-Standards/Documents/Science-Biology-Georgia-Standards.pdf)
Course Description: Students will learn various genetic concepts, including the basics of heredity, DNA, RNA, Cell Division, Mitosis, Meiosis, Mendelian Genetics, Punnett Squares, and more. Students will begin to build a body of knowledge off of the major concepts of the field of study. Students will be expected to keep a laboratory notebook, participate in projects, and develop a thorough understanding of scientific inquiry. Additionally, Students will be prepared to conduct projects and write a formal lab report. Instruction centers around inquiry-based learning that is incorporated into class activities. Learning activities include teacher-lead instruction, group work, individual work, project-based learning, and lab exercises.

Molecular Biology Honors (26.0150043) Inactive — 0.5 Credit

Prerequisite: Biology Honors or AP Biology
Textbook: Campbell Biology Concepts & Connections 8th Edition
Standards:
https://www.georgiastandards.org/Georgia-Standards/Documents/Science-Biology-Georgia-Standards.pdf)
Course Description:
This course explains the basics of cell and molecular biology through simple definitions and illustrative examples. Work through the course at your own pace to study biological molecules, cell functions, cellular transport, photosynthesis, DNA replication, cell cycles, genetic inheritance, viruses and more. This course will follow the Georgia Standards of Excellence (https://www.georgiastandards.org/Georgia-Standards/Documents/Science-Biology-Georgia-Standards.pdf) K-12 framework for biology. Students should be prepared to conduct projects and write a formal lab report. Instruction centers around inquiry-based learning that is incorporated into class activities. Learning activities include teacher-lead instruction, group work, student seatwork, project-based learning, and lab exercises with both student-choice and teacher-choice grouping. Students can expect to start each day with a bell ringer assignment followed by learning activities and/or lecture. At times students will work independently from the teacher in order to achieve student autonomy expected of upper school students. Classes are structured to utilize every minute for learning and assessing understanding. Real world application is a daily objective. Higher-level thinking will be incorporated into each lesson as well as use of technology when applicable to increase student achievement. Students are expected to participate in all activities and actively engage and ask questions during teacher-led lectures. Students are also expected to review and study the content covered in class outside of school daily."

Human Anatomy and Physiology Honors (26.07300) Inactive — 1 Credit

Prerequisite: Biology Honors or AP Biology

Textbook: Essentials of Human Anatomy and Physiology. Pearson 12e.
Standards:
https://www.georgiastandards.org/Georgia-Standards/Documents/Science-Biology-Georgia-Standards.pdf)
Course Description: This upper level science course is designed to provide students with a thorough understanding of how the organ systems within the human body work together to maintain homeostasis, and how a failure in homeostasis results in a disease or health issue. The course was designed with a focus on hands-on and creative assessments that cultivate students' critical thinking, research, and communication skills – both orally in class discussions as well as in written forms. Each unit includes laboratory work in the form of traditional labs and/or simulation activities, the study of specimens, and research-based projects. Students should be prepared to conduct research, work in small groups as well as independently, write scientifically, and communicate their understanding in a variety of methods. Day-to-day instruction methods include teacher-lead instruction, group work, student seatwork, project-based learning, and lab exercises with both student-choice and teacher-choice grouping. Students can expect to start each day with a bell ringer assignment followed by learning activities and lecture. At times students will work independently from the teacher in order to achieve the level of student autonomy expected of upperclassmen students. Classes are structured to utilize every minute for learning and assessing understanding. Real world application is a daily objective. Higher-level thinking will be incorporated into each lesson as well as use of technology, when applicable, to increase student achievement. Students are expected to participate in all activities and actively engage and ask questions during teacher-led lecture. Students are also expected to review and study the content covered in class outside of school daily.

Introduction to Graphics & Design Honors (48.56100) Inactive — 1 Credit

Prerequisite: N/A
Standards: Start on page 56
https://www.georgiastandards.org/Georgia-Standards/Documents/K-12-Visual-Art-Standards.pdf
Course Description: Introduction to Adobe creative suites and basic Java script coding. Also, hands on drawing projects.

Graphics & Design II Honors (48.5610022) Inactive — 1 Credit

Prerequisite: Graphics & Design I or teacher approval
Standards: Start on Page 56
https://www.georgiastandards.org/Georgia-Standards/Documents/K-12-Visual-Art-Standards.pdf
Course Description:A more in-depth look at Adobe creative suites and more self-guided projects. Hands on drawing projects as well.

Graphics & Design III Honors (48.5610023) Inactive — 1 Credit

Prerequisite: Graphics & Design II or teacher approval

Standards: Start on Page 56
https://www.georgiastandards.org/Georgia-Standards/Documents/K-12-Visual-Art-Standards.pdf
Course Description: Enhances level-two skills in graphic design. Covers how to plan and present creative design ideas. Emphasizes design elements and principles, marketing psychology and production techniques. Explores the designing concepts.

Broadcasting / Journalism Honors (10.5171000) Inactive 1 Credit

Prerequisite: N/A
Textbook: Student Journalism & Media Literacy - Fromm, Hall, Manfull
Standards:
https://www.georgiastandards.org/Georgia-Standards/Documents/ELA-9-12-Journalism-Georgia-Standards.pdf
Course Description: This one-credit course offers an understanding of Broadcast/Video Production and how it translates into daily lives and impacts future occurrences. Topics covered may include but are not limited to the history of mass media, terminology, safety, essential equipment, script writing, production team roles, production and programming, set production, lighting, recording and editing, studio production, and professional ethics. Some professional resources supporting student journalism are National Scholastic Press Association, the Georgia Scholastic Press Association, and Student Television Network, including, but not limited to, appropriate organizations for providing leadership training. A complete hands-on learning course. It will also be a class that pulls in all areas of STEAM.

Yearbook Honors (23.0360040) Inactive 1 Credit

Prerequisite: N/A
Standards:
https://www.georgiastandards.org/Georgia-Standards/Documents/ELA-9-12-Journalism-Georgia-Standards.pdf
Course Description: This course is a yearlong course designed for students to develop journalism and design skills and the ability to apply these skills through the production of the school yearbook. The fundamentals of yearbook journalism include coverage of the school year's events, ethics, writing story copy, writing captions, creating sidebars, and photojournalism. Yearbook design includes creating professional layouts, using enhanced graphics, effectively using color and taking many photographs. Students will also develop skills in the principles of advertising to include accounting and ad design. Responsibilities of the yearbook staff member include planning the yearbook ladder, creating yearbook layouts, designing pages, taking photographs for the pages, writing captions on the pages, selling yearbooks and selling business ads. The yearbook advisor must approve student selection for this course. Afterschool work time is vital for success in this elective course.

Introduction to Business & Technology Honors (07.3413040) Inactive 1 Credit

Prerequisite: N/A

Standards:

https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/Business-and-Technology.pdf

Course Description: Using Macroeconomics, Financial Literacy, and Entrepreneurship, this course is designed to teach students of the process of creating, designing and leading a business and the personal and ethical responsibilities they have for themselves and their communities financially. This course in the first semester follows a very large project where students will be building their own business in groups, creating products or services, designing their marketing tools and analyzing how their sales are doing. In the second semester, they will wrap this up by looking at their profit and how taxes affect this and looking at how Macroeconomics and Personal Financial responsibilities can affect our business models.

British Literature and Composition Honors (23.05200) Inactive 1 Credit

Prerequisite: American Literature Honors

Textbooks: 1. Holt, Elements of Literature: Essentials of British and World Lit & 2. Vocabulary from Latin and Greek Roots (Level XII)

Standards:

https://www.georgiastandards.org/Georgia-Standards/Frameworks/ELA-11-12-American-Literature-Standards.pdf

Course Description: Through this course, you will strengthen your reading, writing, speaking, and listening skills as outlined in the Common Core Standards, but we will go far beyond the standards. You will participate in Socratic Seminars on difficult topics and learn to engage articulately with your peers and the world around you. You will write, workshop your writing, revise, edit, publish, and write some more. This course is structured chronologically & thematically (see the course outline at the end of this document). Each unit will be organized around an essential question that will be explored through readings, writing assignments, class discussions, presentations, etc. Grammar instruction and vocabulary will be integrated into the writing process as well as in direct instruction. Students will gain experience with personal narrative, persuasive writing, research papers, poems, and short stories.